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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MAHMOUDI, HASSAN

ART UNIT	PAPER NUMBER
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2165

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/579,623

Applicant(s)

IBITAYO ET AL.

Examiner

Tony Mahmoudi

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. In response to communications filed on 01-October-2004, the specification of the disclosure has been amended by the applicant to overcome the objections made in the previous Office Action. Claims 1-14 are presently pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartley et al (U.S. patent No. 6,532,465) in view of Dong et al (U.S. Patent No. 6,499,023), and further in view of Lipkin (U.S. Patent No. 6,721,747.)

As to claim 1, Hartley et al teaches a framework (see Abstract, and see column 7, lines 12-13) for isolating a business component from specific implementations of a datastore (see column 5, lines 12-18, where “isolating a business component from specific implementation of a datastore” is read on “corresponding to one or more business objects that are highly specific to a client’s implementation), comprising:

Art Unit: 2165

(a) a database in communication with a business component (see figure 4, where “business component” is illustrated as “business objects 35, and “database” is illustrated as “database tables 39);

(b) a domain object factory in communication with the database (see figure 5, where “database” is illustrated as “external data source”);

(c) a domain object in communication with the domain object factory (see figure 4, where “domain object” is illustrated as “domain objects 37, and see “domain object factory 60 in figure 5); and

(d) a datastore in communication with the domain object (see “domain object factory 60” and “data store 65” in figure 5.)

Hartley et al does not teach a database wrapper; wherein the database wrapper provides an abstraction layer.

Dong et al teaches an object-focused workflow system (see Abstract) in which he teaches a database wrapper; wherein the database wrapper provides an abstraction layer (see column 5, lines 23-48.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al to include a database wrapper; wherein the database wrapper provides an abstraction layer.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al with the teaching of Dong et al because including a database wrapper; wherein the database wrapper provides an abstraction layer, would “provide abstract interfaces to the databases and reporting features of the other

Art Unit: 2165

external components, exposing relevant data and update capabilities” , as taught by Dong et al (see column 5, lines 38-41.)

Hartley et al as modified, still does not teach providing an additional abstraction layer between the domain object factory and the business component.

Lipkin teaches method and apparatus for an information server (see Abstract), in which he teaches providing an additional abstraction layer between the domain object factory and the business component (see column 5, lines 26-32, see column 20, lines 16-22, see column 27, lines 4-8, and see column 29, lines 40-45.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al as modified, to include providing an additional abstraction layer between the domain object factory and the business component.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al as modified, by the teaching of Lipkin, because providing an additional abstraction layer between the domain object factory and the business component, would enable the system to improve portability between servers (see Lipkin, column 5, lines line 31), and to provide a richer level of functionality and to allow future modifications with minimal impact on the client application code (see Lipkin, column 27, lines 4-8.)

As to claim 2, Hartley et al as modified teaches wherein the database wrapper further comprises a database wrapper interface in communication with the business component (see

Art Unit: 2165

Dong et al, column 5, lines 38-41) and a database wrapper implementation implementing the domain object factory (see Dong et al, column 4, lines 30-41, and see Hartley et al, figures 4 and 5.)

As to claim 3, Hartley et al as modified teaches wherein the domain object factory further comprises a domain object interface in communication with the database wrapper (see Hartley et al, figure 5, and see column 12, lines 6-9) and a domain object factory implementation implementing the domain object (see Hartley et al, figure 5, and see column 11, lines 28-39.)

As to claim 4, Hartley et al as modified teaches wherein the domain object further comprises a domain object interface in communication with the domain object factory (see Hartley et al, figures 4 and 5) and a domain object implementation retrieving data from a datastore (see Hartley et al, column 10, lines 58-67.)

As to claim 5, Hartley et al as modified teaches wherein the domain object interface further comprises a transient data converter for converting the domain object from a persistent state to a transient state (see Hartley et al, figure 13, and see column 16, lines 6-51, where “objects from a persistent state” is read on “data formats from outside sources”, and “transient state” is read on “standard formats”, and see column 21, lines 63-65.)

Art Unit: 2165

As to claims 6 and 11, Hartley et al as modified teaches wherein the datastore is a relational database (see Hartley et al, column 12, lines 6-12, and see column 21, lines 18-19, where “datastore” is read on “data storage device”).

As to claims 7 and 12, Hartley et al as modified teaches wherein the datastore is an object database (see Hartley et al, column 12, lines 12-14, where “object database” is read on “the master database including the stored domain objects”).

As to claims 8 and 13, Hartley et al as modified teaches wherein the datastore is accessed remotely (see Hartley et al, column 8, lines 33-37, and see column 21, lines 30-32.)

As to claim 9, Hartley et al teaches a method (see Abstract) for isolating a business component from specific implementations of a datastore (see column 5, lines 12-18, where “isolating a business component from specific implementation of a datastore” is read on “corresponding to one or more business objects that are highly specific to a client’s implementation), comprising:

(a) interfacing a database to a business component (see figure 4, where “business component” is illustrated as “business objects 35, and “database” is illustrated as “database tables 39);

(c) interfacing a domain object factory to the database (see figure 5, where “database” is illustrated as “external data source”);

Art Unit: 2165

(d) implementing the domain object factory (see figure 5, and see column 11, lines 28-39);

(e) interfacing a domain object to the domain object factory (see figures 4 and 5); and

(f) implementing the domain object to retrieve data from a datastore (see column 10, lines 58-67.)

For the teaching of “a database wrapper; wherein the database wrapper provides an abstraction”, the applicant is kindly directed to the remarks and discussions made in claim 1 above, in view of the teachings of Dong et al.

For the teachings of “providing an additional abstraction layer between the domain object factory and the business component”, the applicant is kindly directed to the remarks and discussions made in claim 1 above, in view of the teaching of Lipkin.

As to claim 10, Hartley et al as modified teaches the method further comprising converting data received from the datastore from a persistent state to a transient state (see Hartley et al, figure 13, and see column 16, lines 6-51, where “objects from a persistent state” is read on “data formats from outside sources”, and “transient state” is read on “standard formats”, and see column 21, lines 63-65.)

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartley et al (U.S. patent No. 6,532,465) in view of McComb et al (U.S. Patent No. 6,006,224), and further in view of Lipkin (U.S. Patent No. 6,721,747.)

Art Unit: 2165

As to claim 14, Hartley et al teaches a method for (see Abstract) isolating a business component from specific implementations of a datastore (see column 5, lines 12-18, where “isolating a business component from specific implementation of a datastore” is read on “corresponding to one or more business objects that are highly specific to a client’s implementation), comprising:

- (a) supplying a database (see figure 2);
- (c) using the database to obtain a domain object factory (see figure 5);
- (d) using the domain object factory to create a domain object (see figure 5, and see column 11, lines 28-39);
- (e) converting the domain object from a persistent state to a transient state (see figure 13, and see column 16, lines 6-51, where “objects from a persistent state” is read on “data formats from outside sources”, and “transient state” is read on “standard formats”, and see column 21, lines 63-65);

Hartley et al does not teach:

supplying a database wrapper;
using the database wrapper to begin a database session;
ending the database session; and
returning the domain object to the business component.

McComb et al teaches a crucible query system (see Abstract) in which he teaches:

supplying a database wrapper (see figure 2);

Art Unit: 2165

using the database wrapper (see column 7, lines 51-59) to begin a database session (see column 8, lines 41-42, where “begin a database session” is read on “open a connection to the specified database”);

ending the database session (see column 8, line 43, where “end the database session” is read on “close a database connection”); and

returning the domain object to the business component (see column 9, lines 61-64.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al to include supplying a database wrapper; using the database wrapper to begin a database session; ending the database session; and returning the domain object to the business component.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al with the teachings of McComb et al, because supplying a database wrapper would provide the system with “re-useable code that encapsulates procedural code in an application (such as a communication protocol or a database)”, where, “once encapsulated the item becomes an object”, as taught by McComb et al (see column 6, lines 14-17), and because using the database wrapper to begin a database session; ending the database session; and returning the domain object to the business component, would enable the system to communicate with various databases using standard database query languages, and therefore, would increase the flexibility and inter-operability of the system.

Hartley et al as modified still does not teach providing an additional abstraction layer between the domain object factory and the business component.

Art Unit: 2165

Lipkin teaches method and apparatus for an information server (see Abstract), in which he teaches providing an additional abstraction layer between the domain object factory and the business component (see column 5, lines 26-32, see column 20, lines 16-22, see column 27, lines 4-8, and see column 29, lines 40-45.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al as modified, to include providing an additional abstraction layer between the domain object factory and the business component.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al as modified, by the teaching of Lipkin, because providing an additional abstraction layer between the domain object factory and the business component, would enable the system to improve portability between servers (see Lipkin, column 5, lines line 31), and to provide a richer level of functionality and to allow future modifications with minimal impact on the client application code (see Lipkin, column 27, lines 4-8.)

5. Claims 5 and 10 are *further* rejected under 35 U.S.C. 103(a) as being unpatentable over Hartley et al (U.S. patent No. 6,532,465) in view of Dong et al (U.S. Patent No. 6,499,023), and further in view of Lipkin (U.S. Patent No. 6,721,747), as applied to claims 1-13 above, and still further in view of Brownell et al (U.S. Patent No. 6,009,266.)

As to claims 5 and 10, in addition to the teaching of Hartley et al, as modified, on converting domain object/data from a persistent state to a transient state (see Hartley et al, figure 13, and see column 16, lines 6-51, where “objects from a persistent state” is read on “data formats from outside sources”, and “transient state” is read on “standard formats”, and see column 21, lines 63-65), Brownell et al teaches methods, apparatus and data structures for managing transient and persistent distributed objects (see Abstract), in which he teaches a transient data converter for converting the domain object from a persistent state to a transient state (see figure 4a, and see column 11, lines 1-17.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al as modified to include a transient data converter for converting the domain object from a persistent state to a transient state.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hartley et al as modified, by the teaching of Brownell et al, because a transient data converter for converting the domain object from a persistent state to a transient state, would enable the system to move object data from permanent storage devices into a temporary storage device, such as cache memory, so that the objects can be in transit and can be shared/distributed to other computers which are a part of the distributed object operating environment.

Response to Arguments

6. Applicants' arguments filed on 01-October-2004 with respect to the rejected claims in view of the cited references have been fully considered but they are not deemed persuasive:

In response to the applicants' arguments that "applicants provide herewith the Declaration Under Rule 1.131 of inventor Kemi Ibitayo establishing that the invention claimed in the present application was reduced to practice prior to January 14, 2000, which is the effective date of *Lipkin*. Therefore, *Lipkin* is no longer available as a prior art of reference, and given as such, Applicants respectfully submit that a *prima facie* case of obvious does not exist as to the pending claims", the arguments have been fully considered but are not deemed persuasive, because the "establishment of dates" requires that the actual dates of acts relied on to establish diligence must be provided. "Where conception occurs prior to the date of the reference, but reduction to practice is afterward, it is not enough merely to allege that applicant or patent owner had been diligent. *Ex parte Hunter*, 1889 C.D. 218, 49 O.G. 733 (Comm'r Pat. 1889.) Rather, applicant must show evidence of facts establishing diligence." See MPEP § 715.07(a), regarding the diligence requirements.

The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts essentially to

Art Unit: 2165

mere pleading, unsupported by proof or a showing of facts" and, thus, does not satisfy the requirements of **37 CFR 1.131(b)**. *In re Borkowski*, 505 F.2d 713, 184 USPQ 29 (CCPA 1974).

Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also *In re Harry*, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when they occurred.") See GENERAL REQUIREMENTS in MPEP §715.07.

In general, proof of actual reduction to practice requires a showing that the apparatus actually *existed* and *worked* for its intended purpose. See "THREE WAYS TO SHOW PRIOR INVENTION" in MPEP §715.07. In the absence of the "dated, underlying code", the examiner cannot establish, via the submitted forms alone, that the invention "*actually existed and worked for its intended purpose*" at the time of the claimed reduction to practice.

In view of the above examples and the requirements set forth by the MPEP, the examiner is maintaining the validity of the reference(s) cited in the previous and the present Office Actions as appropriate "prior art" to the claims of the present invention.

Art Unit: 2165

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (571) 272-4078. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (571) 272-4083.

tm

February 22, 2005


SAM RIMELL
PRIMARY EXAMINER